In the Specification:

Page 1, Paragraph 2, entitled "State of the Art":

2. State of the Art. A large number of different golf club iron sets are known. Correlated sets of golf clubs have club striking faces with increasing angles of attack to loft a ball a desired distance. The club heads are also increasingly weighted, and the shafts are decreasingly shortened to maintain consistent swing momentum so that each club swing, if properly hit, decreases the distance the golf ball travels by approximately 10 yards. For example, in a correlated set, each club head weight generally increases approximately 7 ~~grains~~ grams per increase in club number. However, each shaft length incrementally decreases about 1/2 inch for a steel shaft per increase in club number. Shaft types and lengths vary depending upon the swing of a golfer. For example, the majority of golfers fall into the average swing category, and have a 65 to 85 mph swing speed requiring a shaft with a low flex point and approximately a 4.0 torque rating. Conversely, professional golfers having a 100 to 115 mph swing speed require a shaft with a mid or high flex point with a 2.0 or so torque rating.

Page 4, beginning at line three:

There are other solid backed clubs still used by professionals and other ~~golfer~~ golfers with consistent swings, who consistently hit the ball in the center of the club face to acquire consistent optimum distance and loft. As most golfers do not have a consistent swing, and often miss hit the ball, various manufacturers started developing wider club heads for their needs. To insure that the club heads still had the same weight, these manufacturers developed hollows or cavities in the back of the club to spread the weight over a wider club head in essentially two types of patterns: 1) muscle backed clubs with center weights mounted behind the hitting surface on the back without a cavity, and 2) perimeter weighted clubs with weights behind the heel and toe on both sides of the cavity behind the club hitting surface. The muscle backed clubs did not straighten out miss hit shots striking the heel and toe of the club. Conversely, the perimeter weighted clubs self corrected miss hit shots on the heel and toe of the club, but lacked center weight to add distance to properly hit center struck shots.

Page 6, first paragraph:

The present invention comprises a tri weight correlated set of iron-type golf clubs. At least two of the clubs of the set have a tri-weight mass positioned to reinforce the most likely hitting surface of the club and provide perimeter weighting of the toe and heel to straighten out off ~~cent~~ center hits. The tri-weight correlated set of iron-type golf clubs have the same swing weight, and at least two clubs of the set are configured with a shaft and with a handle attached to a head. The head has a neck to attach to the shaft, and a face with a hitting surface for impacting a golf ball. They have sides, a top, a back surface behind the hitting surface, and a bottom sole structured to align with the ground and having a heel, and a toe. A first reinforcement sole weight system is attached behind the back surface of the club along the bottom sole. Its mass thickness is structured such that the height (xy-direction) of its sole mass curvilinearly rises with short linear and/or curved segments from a low point proximate the heel, increases along the sole to a peak reinforcing the middle segment of the lower back surface of the club behind the most probable hitting surface, and thereafter curvilinearly declines with short linear and/or curved segments to a low point proximate the toe of the bottom of the sole. It has a depth (yz-direction) of its sole mass curvilinearly ~~rises~~ rising with short linear and/or curved segments increasing in thickness from a least thickness proximate the heel and increasing along the bottom of the sole in depth to reinforce the middle of the lower back surface of the club behind the lower segment of the hitting surface and thereafter decreasing in thickness with short linear and/or curved segments to a least thickness proximate the toe along the sole. The sole mass thus adds center weight with most mass placed behind the lower portion of the club face most probable to impact a golf ball during repetitive strokes and least mass proximate the toe and heel. It has increasing mass toward the center of the club to provide a low center of gravity, which is farther back from the club face to increase resistance to twisting from miss hit shots, while adding distance to well hit center shots.

Page 7, fifth full Paragraph and last Paragraph, extending from line 19 on Page 7 through line 8 on Page 8:

Each club is made of 431 steel or similar material, and has a neck to attach to a shaft, preferably made of graphite materials. The club has an angled face for impacting a golf ball, a back surface, a heel portion, a toe portion, and a sole. Attached to the back of the club is a reinforcement periphery balancing weight structure placed along the perimeter. This reinforcement periphery balancing weight structure defines a cavitated back of the club, and provides increasing weight and thickness behind the toe and heel of the club. The mass behind the heel and toe has least weight and thickness at the top of the club and gradually increases in thickness toward the sole of the club. This ~~tri-weight~~ weight distribution not only provides better balance and strength behind the periphery of the hitting surface of the face of the club, but lowers the center of gravity of the club to provide most of the mass along the sole of the club to maximize hitting distance. It also provides mass behind the heel and toe of the face to maintain shot alignment for off center shots hit in the toe and heel regions of the club face.

Mounted within the back cavity of the club above the sole weight is a third mound weight reinforcing structure partially filling the upper segment of the back cavity of the iron behind the upper most likely hitting surface of the club. The combined masses of the sole weight and the center weight thus provide added mass behind the hitting surface where 85% of the shots contact and leave the hitting surface after being struck as reflected by a Gaussian distribution. Thus, the height of the combined mound and sole weight increases ~~with~~ as the number of each club increases. This is because the increasing club head has a greater angled hitting surface, which allows struck balls to leave the hitting surface farther up on the club face. To insure that these shots have sufficient mass behind them to add distance to the higher iron shots, the weighted mound extends higher behind the hitting surface with higher irons.

Page 10, beginning with the first paragraph, extending through line 5 on Page 11:

FIG. 1 illustrates the back of a preferred embodiment of the tri weight correlated set of iron-type golf clubs 10. At least two of the clubs ~~11~~ 10 of the tri weight correlated set of iron-type golf clubs 10 have a tri-weight mass system positioned to reinforce the most likely hitting surface of the club and provide perimeter weighting of the toe and heel regions to straighten out off ~~cent~~ center hits. The tri-weight correlated set of iron-type golf clubs 10 have the same swing weight, with at least two clubs ~~11~~ 10 of the set ~~are~~ configured with a shaft 12 with a handle (not shown) attached to a head 14. The head 14 has a neck 16 to attach to the shaft 12, and a face 18 shown in FIG. 1a with a hitting surface 20 shown in FIG. 1a for impacting a golf ball. They have sides 21, a top 23, a back surface 24 behind the hitting surface 20, and a bottom sole 26 structured to align with the ground and having a heel 27, and a toe 28. A first reinforcement sole weight system 30 is attached behind the back surface 24 of the club along the bottom sole 26. Its mass thickness is structured such that the height (xy-direction) of its sole mass curvilinearly rises with short linear and/or curved segments from a low point proximate the heel 27, increases along the sole 26 to a peak reinforcing the middle segment of the lower back surface 24 of the club behind the most probable hitting surface 20, and thereafter curvilinearly declines with short linear and/or curved segments to a low point proximate the toe 28 of the bottom of the sole 26. It has a depth (z-direction) of its sole mass curvilinearly rises with short linear and/or curved segments increasing in thickness from a least thickness proximate the heel 27 and increasing along the bottom of the sole in depth to reinforce the middle of the lower back surface 24 of the club behind the lower segment of the hitting surface 20 and thereafter decreasing in thickness with short linear and/or curved segments to a least thickness proximate the toe along the sole 26. The sole mass thus adds center weight with most mass placed along the lower portion of the club face most probable to impact a golf ball during repetitive strokes and least mass proximate the toe and heel. It has increasing mass toward the center of the club to provide a low center of gravity, which is farther back from the club face to increase resistance to twisting from miss hit shots, while adding distance to well hit center shots.

A second periphery balancing weight system 32 is placed along the top 23 and sides 21 of the back surface 24 of the club head 14. Preferably the second periphery balancing weight system 32 is structured to contact the sole weight 30, thereby defining a cavity in said back surface 24. The periphery balancing weight structure has least weight and thickness starting at the top 23 of the back

surface 24 and gradually increases in weight and thickness toward the sole 26 of the club to lower the center of gravity of the club. It provides better balance and strength behind the periphery of the hitting surface of the face of the club to resist twisting of the club when contacted by an off-center hit to aid in maintaining shot alignment.